

CLAIM AMENDMENTS

1. (currently amended) A method of grounding a metal

tube which serves to conduct a liquid or a gas on a vehicle and is surrounded by an electrically nonconductive plastic layer, to a metal part formed by a chassis of the vehicle which comprises the steps of:

(a) providing a clip at least in part composed of a plastic which has been made electrically conductive and having a penetrating portion fabricated with one or more projections adapted to penetrate said plastic layer;

(b) applying said clip to the metal tube surrounded by the electrically nonconductive plastic layer and pressing said penetrating portion through said plastic layer into direct electrically conducting contact with the metal tube;

(c) thereafter welding said clip to said plastic layer;
and

(d) electrically connecting said clip to said metal part.

2. (Cancelled)

1 3. (Previously presented) The method defined in claim 1
2 wherein said clip is welded to said plastic layer by a rotational
3 welding.

1 4. (Previously presented) The method defined in claim 1
2 wherein said clip is welded to said plastic layer by ultrasonic
3 welding.

1 5. (Previously presented) The method defined in claim 1
2 wherein said clip is welded to said plastic layer by vibrational
3 welding.

1 6. (Previously presented) The method defined in claim 1
2 wherein said clip is welded to said plastic layer by induction
3 welding.

1 7. (Previously presented) The method defined in claim 1
2 wherein said clip is made electrically conductive by the
3 incorporation of metal fibers in the plastic thereof.

1 8. (Original) The method defined in claim 7, further

2 comprising reinforcing said clip by incorporating glass fibers
3 therein.

1 9. (Withdrawn) A clip for grounding a metal tube
2 surrounded by an electrically nonconductive plastic layer to a
3 metal part which comprises a clip body having a penetrating portion
4 and composed at least in part of a plastic whereby, upon
5 application of said clip to the metal tube surrounded by the
6 electrically nonconductive plastic layer and pressing of said
7 penetrating portion through said plastic layer into direct
8 electrically conducting contact with the metal tube, said clip can
9 thereafter be welded to said plastic layer and electrically
10 connected to said metal part.

1 10. (Withdrawn) The clip according to claim 9 which has
2 a sleeve portion adapted to extend more than 180° around said tube.

1 11. (Withdrawn) The clip according to claim 9 wherein
2 the plastic of said clip is the same as the plastic of said layer.

1 12. (Withdrawn) The clip defined in claim 9 wherein
2 said portions consist essentially of a plastic to which metal
3 fibers have been added to make the plastic of the clip electrically
4 conductive.

1 13. (Withdrawn) The clip defined in claim 12 wherein
2 glass fibers are added as a reinforcement to the clip.

1 14. (Withdrawn) The clip as defined in claim 12 wherein
2 said metal fibers are steel fibers.

1 15. (Withdrawn) The clip as defined in claim 9 wherein
2 said projecting portion is formed by triangular section or
3 trapezoidal section projections or teeth.

1 16. (Withdrawn) An automotive duct assembly comprising:
2 a metal automotive vehicle chassis;
3 a metal tube extending along said chassis and adapted to
4 conduct an automotive fluid, said tube having a plastic
5 nonconductive layer on an exterior thereof; and
6 a clip grounding said metal tube surrounded by said

7 electrically nonconductive plastic layer to said chassis, said clip
8 comprising a clip body having a penetrating portion and composed
9 at least in part and applied to the metal tube surrounded by the
10 electrically nonconductive plastic layer and having said
11 penetrating portion pressed through said plastic layer into direct
12 electrically conducting contact with the metal tube, said clip
13 being welded to said plastic layer and electrically connected to
14 said metal part.

1 17. (Withdrawn) The automotive duct assembly defined in
2 claim 16 wherein said clip body is a split ring consisting of a
3 thermoplastic material in which metal fibers are disbursed and said
4 penetrating portion comprises a plurality of projections of
5 triangular or trapezoidal cross section capable of pressing through
6 said plastic layer, said clip body being compressed around said
7 metal tube.